

LABORATORY GROWTH TEST CHAMBERS MODEL GROW 361

- Luminosity intensity control in 6 different levels, photoperiod day/night
- Differentiated temperature control: day/night
- Temperature range from +4° C to +55° C with lights OFF and +12° C to +45° C with lights ON
- Audible and visual independent alarms for maximum temperature
- Warning alarm for end of process
- Digital display for temperature and control
- Accuracy of +/- 0.1°C, on the display
- Homogeneity of +/- 1,0° C, in the chamber at 40° C
- Stability of +/- 0.3° C, in the chamber at 40° C
- Big volume ventilation in the chamber by powerful forced air-flow, distributed uniformly upward
- Microprocessor for parameters control with PID system
- Temperature probe Pt 100, type A, resolution 0,1° C
- Up to 32 different programmes cycles with 99 step each cycle.
- Luminosity intensity control until in 6 different levels, 12.000 lux (145 µMol/m² s), at more than 30° C

TECHNICAL SPECIFICATIONS FOR MODELS GROW 361 AND GROW 361/HR

- Thermal glass internal door
- Main power switch ON-OFF retro-illuminated
- External solid door, opens 180°, right hand configuration
- Touch control panel
- Temperature controller with retro-illuminated crystal liquid screen
- Available to simulate sunset and sunrise
- Temp, light intensity and humidity level can be programmed in each step
- The equipment can work continuously with the same programm continuously cycle or stop after end off programm cycle, programmable options
- 6 different levels of light intensity from darkness up to 21 fluorescent tubes, with 30W power each tube
- Audible and visible alarms, until selected temperature reestablishment
- Models with big volume ventilator in the chamber, forced air-flow recirculation; distributed uniformly upward, warranty a high homogeneity of the temperature inside the chamber
- Cooling gas R134a, CFC and HCFC free, biodegradable
- Hermetic compressor, built over dampers, low noise <48dB
- Independent cooling and heating systems
- Evaporator with automatic defrost
- Internal chamber of stainless steel 18/8 AISI 304
- Round corners for easy cleaning
- Shelves of stainless steel 18/8, grill type, with height regulation
- External body of steel, epoxy coated
- Perimeter gasket, heat resistant, for a perfect closing of the door
- Isolation 60 mm of high density injected polyurethane, CFC and HCFC free
- Base with 4 wheels, for easy movement
- Tropical treatment, to allow work until +38° C working area temperature, with 85-90% R.H.



GROW 361

+4°..+55°

- Light power intensity adjustable until 12.000 lux (145 µMol/m² s) at more than 30° C, measured in the chamber centre
- Lights system placed on sides and frontal doors, avoid the lights thermal increment inside the chamber and allow easy change of tubes
- Lights system with 21 x 30W fluorescent tubes with day light type 084, same as sun light spectrum

Models	Capacity in Litres	Internal/ External	N° of shelves	Power in W	Compressors HP	Internal Dimen. in mm wide x depth x high	External Dimen. in mm wide x depth x high	Weight/ Pack net/gross	Vol/Pack m ³
GROW 361	360	Stainless steel/Epoxy	4	1360	0,5	600 x 500 x 1200	930 x 730 x 1900	220/250	1,9

1 cu ft= 28,3 litres. 1 inch= 25,4 mm.

LABORATORY GROWTH TEST CHAMBERS WITH HUMIDITY CONTROL MODEL GROW 361/HR

- Humidity control: working range from 60 to 98% R.H. (+/-3 ° C), in a temperature range from +19° C to +40° C
- Differentiated temperature control: day/night
- Differentiated humidity control: day/night
- Luminosity intensity control in 6 different levels, photoperiod day/night
- Differentiated temperature control: day/night
- Temperature range from +4° C to +55° C with lights OFF and +12° C to +45° C with lights ON
- Audible and visual independent alarms for maximum temp.
- Warning alarm for end of process
- Digital display for temperature and control
- Accuracy of +/- 0.1°C, on the display
- Homogeneity of +/- 1,0° C, in the chamber at 40° C
- Stability of +/- 0.3° C, in the chamber at 40° C
- Big volume ventilation in chamber by powerful forced airflow, distributed uniformly upward
- Microprocessor for parameters control with PID system
- Temperature probe Pt 100, type A, resolution 0,1° C
- Up to 32 different programmes cycles with 99 step each cycle
- Luminosity intensity control until in 6 different levels, 12.000 lux (145 µMol/m².s), at more than 30° C
- Electronic probe for the humidity measurement (4-20 mA) with accuracy of +/-2% (in models GROW 361/HR)
- Humidity generator by ultrasound to introduce in the chamber microscopic water drops at ambient temperature (in models GROW 361/HR)
- Humidity dry system over cooling generator, by condensation (in models GROW 361/HR)

OPTIONAL ACCESSORIES FOR MODELS GROW 361 AND GROW 361/HR

- Temperature and /or humidity circular chart recorder 7 days, with independent battery back-up, works even with power failures
- Printer for temperature and /or humidity records
- Indication for door open, with audible and visual alarms
- Alarms with battery back-up
- Internal electrical plug (power supply), for connexion of equipments inside the chamber
- Main power switch, key protected
- Remote control interface connection RS 485/232
- Potential free out put for remote alarm control
- PC software communication on request
- Main power switch, key protected
- Security lock on the door with keys
- Port holes for external instruments
- Data loggers
- UV light tubes for sterilization



GROW 361 HR

+4°..+55°
60%..98%

Models	Capacity in Litres	Internal/ External	N° of shelves	Power in W	Compressors HP	Internal Dimen. in mm wide x depth x high	External Dimen. in mm wide x depth x high	Weight/ Pack net/gross	Vol/Pack m ³
GROW 361/HR	360	Stainl. steel /Epoxy	5	1360	0,5	600 x 500 x 1200	930 x 730 x 1900	150/180	1,8

1 cu ft= 28,3 litres. 1 inch= 25,4 mm.

GENERAL PURPOSE LABORATORY GROWTH TEST CHAMBERS MODELS GROW

- Luminosity intensity control: day/night time period program
- Programmable temperatures day/night
- Temperature range from +4° C to +50° C with lights OFF and +12° C to +50° C with lights ON
- Digital displays for temperature and photoperiod, day/night
- Accuracy of +/- 0.1°C, on the display
- Homogeneity of +/- 1,5° C, in the chamber at 40° C
- Stability of +/- 0.5° C, in the chamber at 40° C
- Big volume air-flow in the chamber with powerful airflow, distributed uniformly upward
- Microprocessor for control and programming all parameters, with PID system
- Temperature probe Pt 100, type A, resolution of 0.1 °C
- Security thermostat , protect the test again over temperature
- Luminosity intensity control until 10.000 lux (120 µMol/m².s), at more than 30° C, lights are controlled in different intensity levels

TECHNICAL SPECIFICATIONS FOR MODELS GROW AND GROW/HR

- Solid door with opening aids and big size handle
- Two side opening door, right or at left opening available (factory configuration)
- Security lock on the door with keys
- On/Off retro illuminate switch
- Microprocessor control all parameters, ensure a high temperature stability
- Programmable timer to set the day/night lights: time period
- Models with big volume ventilator in the chamber, forced air-flow cooling systems; distributed uniformly upward, warranty a high homogeneity of the temperature inside the chamber
- Different levels of light intensity, by independent switched fluorescent tubes of 12 x 36W each tube
- Cooling gas R134a, CFC and HCFC free, biodegradable
- Silent hermetic compressor, built over dampers, low noise <48dB
- Independent cooling system, by electro valves
- Evaporator with automatic defrost
- External body of stainless steel 18/8 AISI 304
- Internal chamber of stainless steel 18/8 AISI 304
- Round corners for easy cleaning
- Internal shelves, grill type, of plastic coated steel wire with height regulation
- Perimeter gasket, heat resistant, for a perfect closing of the door
- Isolation 60 mm of high density injected polyurethane, CFC and HCFC free
- Feet size adjusts equipment height
- Tropical treatment, to allow work until +38° C working area temperature, with 85-90% R.H.



GROW 1322

- Light power intensity adjustable until 10.000 lux (120 µMol/m².s) at more than 30° C, measured in the chamber centre
- Lights system placed on the frontal door, alternative: according to the needs of the customer can be also placed acc. personalized studies of the lights (e.g., in the shelves for growth in vivo or in vitro)
- Lights system with 36W fluorescent tubes with day light type 084, same as sun light spectrum

+4°..+50°

Models GROW	Capacity in Litres	Internal/ External	N° of shelves	Power consume in W*	Compressors HP	Internal Dimen. in mm wide x depth x high	External Dimen. in mm wide x depth x high	Weight/ Pack net/gross	Vol/Pack m ³
Grow 452	452	Stainless Steel	3	910	1/2	582 x 550 x 1392	700 x 707 x 1981	115/130	1,2
Grow 612	612	Stainless Steel	4	950	3/8	582 x 687 x 1487	700 x 819 x 2075	120/140	1,5
Grow 982	982	Stainless Steel	3	950	3/8	1282 x 550 x 1392	1400 x 707 x 1981	170/200	2,3
Grow 1322	1322	Stainless Steel	4	1100	1 1/4	1282 x 687 x 1487	1400 x 819 x 2075	200/230	2,7

1 cu ft= 28,3 litres. 1 inch= 25,4 mm.